Expand, Then Combine: Worked Answers

Each problem solved the way the lesson does it.

Name: _____ Date: _____

1. Simplify $2(x + 5) + 3x$
   - Expand: $2x + 10 + 3x$.
   - Combine: $(2x + 3x) + 10$.

   Answer: $5x + 10$

2. Simplify $4(y - 1) + 2(y + 3)$
   - Expand: $4y + (-4) + 2y + 6$.
   - Combine: $(4y + 2y) + ((-4) + 6)$.

   Answer: $6y + 2$

3. Simplify $8 + 3(2a - 1)$
   - Expand: $8 + 6a + (-3)$.
   - Do not add 8 + 3 first.

   Answer: $6a + 5$

4. Simplify $12 - 2(x + 4)$
   - Hand out -2: $12 + (-2x) + (-8)$.

   Answer: $-2x + 4$

5. Simplify $3(m - 2) - 2(m - 6)$
   - Expand: $3m + (-6) + (-2m) + 12$.
   - Combine: $(3m + (-2m)) + ((-6) + 12)$.

   Answer: $m + 6$

6. Simplify $-(x - 5) + 4(2x + 1)$
   - Expand: $(-1x) + 5 + 8x + 4$.

   Answer: $7x + 9$

7 Five friends each buy a sandwich for s dollars and a 2 dollar cookie. They use one 4 dollar coupon. Write the total cost simplified.

- 5(s + 2) − 4.
- Expand: 5s + 10 + (−4).

Answer: 5s + 6 dollars

8 Simplify 2(3x + 1) + 3(x − 2) − 5

- Expand: 6x + 2 + 3x + (−6) + (−5).
- Combine: (6x + 3x) + (2 + (−6) + (−5)).

Answer: 9x − 9